

***N(1880) 1/2<sup>+</sup>*** $I(J^P) = \frac{1}{2}(\frac{1}{2}^+)$  Status: \*\*

OMITTED FROM SUMMARY TABLE

***N(1880) BREIT-WIGNER MASS***

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
1870±35	ANISOVICH	12A	DPWA Multichannel
• • • We do not use the following data for averages, fits, limits, etc. • • •			
1900±36	SHRESTHA	12A	DPWA Multichannel
1885±30	MANLEY	92	IPWA $\pi N \rightarrow \pi N & N\pi\pi$

NODE=B087M

NODE=B087M

***N(1880) BREIT-WIGNER WIDTH***

VALUE (MeV)	DOCUMENT ID	TECN	COMMENT
235± 65	ANISOVICH	12A	DPWA Multichannel
• • • We do not use the following data for averages, fits, limits, etc. • • •			
485±142	SHRESTHA	12A	DPWA Multichannel
113± 44	MANLEY	92	IPWA $\pi N \rightarrow \pi N & N\pi\pi$

NODE=B087W

NODE=B087W

***N(1880) POLE POSITION***

REAL PART	DOCUMENT ID	TECN	COMMENT
1860±35	ANISOVICH	12A	DPWA Multichannel
• • • We do not use the following data for averages, fits, limits, etc. • • •			
1801	SHRESTHA	12A	DPWA Multichannel

NODE=B087215

NODE=B087RE

NODE=B087RE

-2xIMAGINARY PART	DOCUMENT ID	TECN	COMMENT
250±70	ANISOVICH	12A	DPWA Multichannel
• • • We do not use the following data for averages, fits, limits, etc. • • •			
383	SHRESTHA	12A	DPWA Multichannel

NODE=B087IM

NODE=B087IM

***N(1880) ELASTIC POLE RESIDUE***

MODULUS   <i>r</i>	DOCUMENT ID	TECN	COMMENT
6±4	ANISOVICH	12A	DPWA Multichannel

NODE=B087220

NODE=B087RER

NODE=B087RER

PHASE θ	DOCUMENT ID	TECN	COMMENT
80±65	ANISOVICH	12A	DPWA Multichannel

NODE=B087IMR

NODE=B087IMR

***N(1880) INELASTIC POLE RESIDUE***The "normalized residue" is the residue divided by  $\Gamma_{pole}/2$ .

Normalized residue in $N\pi \rightarrow N(1880) \rightarrow N\eta$	DOCUMENT ID	TECN	COMMENT
11±7	-75 ± 55	ANISOVICH	12A DPWA Multichannel

NODE=B087240

NODE=B087240

Normalized residue in $N\pi \rightarrow N(1880) \rightarrow \Lambda K$	DOCUMENT ID	TECN	COMMENT
3±2	40 ± 40	ANISOVICH	12A DPWA Multichannel

NODE=B087RS2

NODE=B087RS2

Normalized residue in $N\pi \rightarrow N(1880) \rightarrow \Sigma K$	DOCUMENT ID	TECN	COMMENT
11±6	95 ± 40	ANISOVICH	12A DPWA Multichannel

NODE=B087RS3

NODE=B087RS3

Normalized residue in $N\pi \rightarrow N(1880) \rightarrow \Delta\pi, P\text{-wave}$	DOCUMENT ID	TECN	COMMENT
20±8	-150 ± 50	ANISOVICH	12A DPWA Multichannel

NODE=B087RS4

NODE=B087RS4

**N(1880) DECAY MODES**

NODE=B087225;NODE=B087

Mode				
$\Gamma_1$	$N\pi$			DESIG=1
$\Gamma_2$	$N\eta$			DESIG=2
$\Gamma_3$	$\Lambda K$			DESIG=3
$\Gamma_4$	$\Sigma K$			DESIG=4
$\Gamma_5$	$\Delta(1232)\pi$			DESIG=5
$\Gamma_6$	$N\rho, S=1/2$			DESIG=6
$\Gamma_7$	$N(\pi\pi)^{I=0}_{S-wave}$			DESIG=7
$\Gamma_8$	$p\gamma$			DESIG=8
$\Gamma_9$	$n\gamma$			DESIG=9

**N(1880) BRANCHING RATIOS**

$\Gamma(N\pi)/\Gamma_{total}$			$\Gamma_1/\Gamma$	
VALUE (%)	DOCUMENT ID	TECN	COMMENT	
5±3	ANISOVICH	12A	DPWA Multichannel	NODE=B087R1 NODE=B087R1

• • • We do not use the following data for averages, fits, limits, etc. • • •

$\Gamma(N\eta)/\Gamma_{total}$			$\Gamma_2/\Gamma$	
VALUE (%)	DOCUMENT ID	TECN	COMMENT	
25 <sup>+30</sup> <sub>-20</sub>	ANISOVICH	12A	DPWA Multichannel	NODE=B087R2 NODE=B087R2

• • • We do not use the following data for averages, fits, limits, etc. • • •

$\Gamma(\Lambda K)/\Gamma_{total}$			$\Gamma_3/\Gamma$	
VALUE (%)	DOCUMENT ID	TECN	COMMENT	
2±1	ANISOVICH	12A	DPWA Multichannel	NODE=B087R3 NODE=B087R3

• • • We do not use the following data for averages, fits, limits, etc. • • •

$\Gamma(\Sigma K)/\Gamma_{total}$			$\Gamma_4/\Gamma$	
VALUE (%)	DOCUMENT ID	TECN	COMMENT	
17±7	ANISOVICH	12A	DPWA Multichannel	NODE=B087R4 NODE=B087R4

$\Gamma(\Delta(1232)\pi)/\Gamma_{total}$			$\Gamma_5/\Gamma$	
VALUE (%)	DOCUMENT ID	TECN	COMMENT	
29±12	ANISOVICH	12A	DPWA Multichannel	NODE=B087R5 NODE=B087R5

• • • We do not use the following data for averages, fits, limits, etc. • • •

$\Gamma(N\rho, S=1/2)/\Gamma_{total}$			$\Gamma_6/\Gamma$	
VALUE (%)	DOCUMENT ID	TECN	COMMENT	

• • • We do not use the following data for averages, fits, limits, etc. • • •

$\Gamma(N(\pi\pi)^{I=0}_{S-wave})/\Gamma_{total}$			$\Gamma_7/\Gamma$	
VALUE (%)	DOCUMENT ID	TECN	COMMENT	

• • • We do not use the following data for averages, fits, limits, etc. • • •

8±5	SHRESTHA	12A	DPWA Multichannel	NODE=B087R02 NODE=B087R02
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**N(1880) PHOTON DECAY AMPLITUDES**

$N(1880) \rightarrow p\gamma$ , helicity-1/2 amplitude $A_{1/2}$				
VALUE ( $\text{GeV}^{-1/2}$ )	DOCUMENT ID	TECN	COMMENT	
0.014±0.003	<sup>1</sup> ANISOVICH	12A	DPWA Phase = $(-130 \pm 60)^\circ$	NODE=B087A1 NODE=B087A1

• • • We do not use the following data for averages, fits, limits, etc. • • •

0.021±0.006	SHRESTHA	12A	DPWA Multichannel	NODE=B087235
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***N(1880) → nγ, helicity-1/2 amplitude A<sub>1/2</sub>***

<i>VALUE (GeV<sup>-1/2</sup>)</i>	<i>DOCUMENT ID</i>	<i>TECN</i>	<i>COMMENT</i>
• • • We do not use the following data for averages, fits, limits, etc. • • •			
0.014±0.007	SHRESTHA	12A	DPWA Multichannel

***N(1880) FOOTNOTES***

<sup>1</sup> This ANISOVICH 12A value is the complex helicity amplitude at the pole position.

***N(1880) REFERENCES***

ANISOVICH SHRESTHA	12A 12A	EPJ A48 15 PR C86 055203	A.V. Anisovich <i>et al.</i> M. Shrestha, D.M. Manley	(BONN, PNPI) (KSU)
MANLEY Also	92	PR D45 4002 PR D30 904	D.M. Manley, E.M. Saleski D.M. Manley <i>et al.</i>	(KSA) (VPI)

NODE=B087A3  
NODE=B087A3

NODE=B087  
NODE=B087A1;LINKAGE=AN

NODE=B087

REFID=54041  
REFID=54862  
REFID=41535  
REFID=30071